

AMENDMENTS TO THE CLAIMS:

1. (Currently amended) A content supply apparatus, ~~interposed~~ interposable between a portable terminal and a content server, for obtaining content demanded by the portable terminal ~~to obtain~~ and sending the obtained content to the portable terminal, said content supply apparatus comprising:

a content ~~hold means~~ holding section for holding ~~the~~ content obtained from the content server;

a divided content supply ~~means~~ section for obtaining the demanded content ~~demanded by the portable terminal~~ from said content ~~hold means~~ holding section if the ~~same demanded content~~ exists in said means content holding section, and obtaining the demanded content from the content server if the ~~same demanded content~~ does not exist in said content holding section, and for transmitting the obtained content to the portable terminal ~~by in~~ divided content ~~unit~~ units of ~~every a maximum~~ information amount that can be displayed by the portable terminal; and

a prefetcher ~~means~~ section for prefetching ~~the~~ other contents, referred from ~~said the transmitted~~ divided content units, ~~by transmitted divided content unit~~, from the content server, and storing the prefetched content in said content ~~hold means~~ holding section.

2. (Currently amended) The content supply apparatus of claim 1, further comprising:

a link information format conversion section for mutual conversion of URI format link information and ID number format link information; ~~and~~

wherein, said divided content supply ~~means-section~~ transmits link information in the ~~transmitted~~ divided content ~~units to be transmitted~~ to the portable terminal by substituting ~~entirely with an~~ ID number format provided by said link information format conversion ~~section, obtains the section for a corresponding URI by said link information format conversion section,~~ when the portable terminal demands to ~~obtain content in use of the~~ ID number format.

3. (Currently amended) The content supply apparatus of claim 1, further comprising:
a prefetch list creation section for detecting link information to the other contents contained in the transmitted divided content units, and ~~transmitted by said divided content supply means to the portable terminal~~ for establishing a prefetch list and delivering the established prefetch list to said prefetcher ~~means section~~.

4. (Currently amended) The content supply apparatus of claim 1, wherein:
said prefetcher ~~means-section~~ prefetches according to ~~the~~ a prefetch list transmitted from the portable terminal.

5. (Currently amended) The content supply apparatus of claim 1, wherein:
if the content to ~~prefetch~~ be prefetched is either ~~the~~ content under pay content access restriction, or ~~the~~ content that could not be prefetched due to network trouble or other reason, said prefetcher ~~means-section~~ stores that a message in said content ~~hold means matching off holding section matched~~ against the concerned content URI, and said divided content ~~division~~

~~means, upon the reception of said~~ supply section receives the stored message during ~~the a~~
search ~~of for~~ the content demanded by the portable terminal ~~to obtain from said content held~~
~~means, and~~ transmits the received message to the portable terminal.

6. (Currently amended) The content supply apparatus of claim 1, wherein:

said content ~~held means~~ holding section includes a transmission memory section for
holding ~~only~~ contents supplied ~~actually~~ to the portable terminal, a prefetch memory section
for holding ~~only~~ prefetched content, ~~among the other contents referred from the content held~~
~~in said transmission memory section, and~~ a cache memory section for holding ~~the~~ content the
portable terminal had obtained ~~in the past~~ previously.

7. (Currently amended) A machine readable recording media ~~recording~~ storing a
program for ~~functioning~~ operating a computer ~~constituting system including~~ a content supply
apparatus, ~~interposed~~ interposable between a portable terminal and a content server, ~~for~~
~~obtaining to obtain~~ content demanded by the portable terminal ~~to obtain and~~ sending to send
the obtained content to the portable terminal, ~~as by:~~

searching a content ~~held means for~~ holding section for the demanded content;
~~obtained from the content server;~~

~~a divided content supply means for~~ obtaining the demanded content ~~demanded by the~~
~~portable terminal from said~~ the content held means holding section if the ~~same~~ demanded
content exists in ~~said means~~ the content holding section, and obtaining the demanded content
from the content server if the ~~same~~ demanded content does not exist in the content holding

section, and transmitting the obtained content to the portable terminal ~~by~~ in divided content ~~unit~~ units of ~~every~~ a maximum information amount that can be displayed by the portable terminal; and

~~a prefetcher means for prefetching the other contents, referred from said the~~
~~transmitted~~ divided content units, ~~by transmitted divided content unit~~, from the content server, and storing the prefetched content in said content ~~hold means~~ holding section.

8. (Currently amended) The content supply apparatus of claim 2, wherein:

said content ~~hold means~~ holding section includes a transmission memory section for holding ~~only~~ contents supplied ~~actually~~ to the portable terminal, a prefetch memory section for holding ~~only~~ prefetched content, ~~among the other contents referred from the content held in said transmission memory section,~~ and a cache memory section for holding ~~the~~ content the portable terminal had obtained ~~in the past~~ previously.

9. (Currently amended) The content supply apparatus of claim 3, wherein:

said content ~~hold means~~ holding section includes a transmission memory section for holding ~~only~~ contents supplied ~~actually~~ to the portable terminal, a prefetch memory section for holding ~~only~~ prefetched content, ~~among the other contents referred from the content held in said transmission memory section,~~ and a cache memory section for holding ~~the~~ content the portable terminal had obtained ~~in the past~~ previously.

10. (Currently amended) The content supply apparatus of claim 4, wherein:

said content ~~hold means~~ holding section includes a transmission memory section for holding ~~only~~ contents supplied ~~actually~~ to the portable terminal, a prefetch memory section for holding ~~only~~ prefetched content, ~~among the other contents referred from the content held in said transmission memory section,~~ and a cache memory section for holding ~~the~~ content the portable terminal had obtained in the past.

11. (Currently amended) The content supply apparatus of claim 5, wherein:

said content ~~hold means~~ holding section includes a transmission memory section for holding ~~only~~ contents supplied ~~actually~~ to the portable terminal, a prefetch memory section for holding ~~only~~ prefetched content, ~~among the other contents referred from the content held in said transmission memory section,~~ and a cache memory section for holding ~~the~~ content the portable terminal had obtained in the past.

12. (New) A content supply apparatus, interposable between a portable terminal and a content server, for obtaining content demanded by the portable terminal and sending the obtained content to the portable terminal, said content supply apparatus comprising:

a content holding section for holding content obtained from the content server; and

a content supply section for obtaining the demanded content from said content holding section if the demanded content exists in said content holding section, and obtaining the

demanded content from the content server if the demanded content does not exist in said content holding section, and for transmitting the obtained content to the portable terminal.

13. (New) The content supply apparatus of claim 12, further comprising a prefetcher section for prefetching other contents, referred from the transmitted content units, from the content server, and storing the prefetched content in said content holding section.

14. (New) The content supply apparatus of claim 13, wherein:
said content holding section includes a transmission memory section for holding contents supplied to the portable terminal, a prefetch memory section for holding prefetched content, and a cache memory section for holding content the portable terminal had obtained previously.

15. (New) The content supply apparatus of claim 13, further comprising:
a prefetch list creation section for detecting link information to the other contents contained in the transmitted content units, and for establishing a prefetch list and delivering the established prefetch list to said prefetcher section.

16. (New) The content supply apparatus of claim 13, wherein:
said prefetcher section prefetches according to a prefetch list transmitted from the portable terminal.

17. (New) The content supply apparatus of claim 12, further comprising:

a link information format conversion section for mutual conversion of URI format link information and ID number format link information,

wherein, said content supply section transmits link information in the transmitted content units to the portable terminal by substituting an ID number format provided by said link information format conversion section for a corresponding URI when the portable terminal demands use of the ID number format.

18. (New) The content supply apparatus of claim 12, wherein:

if the content to be prefetched is either content under pay content access restriction, or content that could not be prefetched due to network trouble or other reason, said prefetcher section stores a message in said content holding section matched against the concerned content URI, and said content supply section receives the stored message during a search for the content demanded by the portable terminal and transmits the received message to the portable terminal.

19. (New) A machine readable recording media storing a program for operating a computer system including a content supply apparatus, interposable between a portable terminal and a content server, to obtain content demanded by the portable terminal and to send the obtained content to the portable terminal, by:

searching a content holding section for the demanded content; and

obtaining the demanded content from the content holding section if the demanded

content exists in the content holding section, or obtaining the demanded content from the content server if the demanded content does not exist in the content holding section; and transmitting the obtained content to the portable terminal in divided content units of a maximum information amount that can be displayed by the portable terminal.

20. (New) The machine readable recording media of claim 19, wherein said program further prefetches other contents, referred from the transmitted content units, from the content server, and stores the prefetched content in said content holding section.

21. (New) A method of operating a computer system including a content supply apparatus, interposable between a portable terminal and a content server, to obtain content demanded by the portable terminal and to send the obtained content to the portable terminal, by:

searching a content holding section for the demanded content;

obtaining the demanded content from the content holding section if the demanded content exists in the content holding section, or obtaining the demanded content from the content server if the demanded content does not exist in the content holding section; and

transmitting the obtained content to the portable terminal in divided content units of a maximum information amount that can be displayed by the portable terminal.

22. (New) The content supply apparatus of claim 1, wherein said content holding section includes a transmission memory section for holding contents supplied to the portable

Serial No. 09/725,894
Docket No. PNDF-00163

terminal.

23. (New) The content supply apparatus of claim 1, wherein said content holding section includes a prefetch memory section for holding prefetched content.

24. (New) The content supply apparatus of claim 1, wherein said content holding section includes a cache memory section for holding content the portable terminal had obtained previously.